## Annual Examination 2023-24
## Class 9th
## Sub - Science

**Time - 3h.** **MM - 75**

Section. A

Q 1 choose the correct options. 20

1 .which of the following phenomenon always results in the cooling effect.
a) condensation. b) Evaporation
c) sublimation. d) None of these

.2 which of the following is not chemical changes?
a) freezing of water. b) Growth of a plant
c) Rusting of iron. d) Burning of a candle

.3 The management and production of fish is called.
a) pisciculture. b) API culture
c) sericulture. d) Aquaculture

.4 what is the process of growing two or more crops in a definite pattern?
a) crop rotation b) intercropping
c) mixed cropping d) organic croping

5.sound travels in air if.
a) particle of medium travel from one place to another
b) there is no moisture in the atmosphere
c) disturbance moves d) both particles as well as disturbance travel from one place to another.

.6.according to the third law of motion, action and reaction.
a) always act on the same body
b) have same magnitude and directions
c) always act on different bodies in opposite direction d) act on either body at normal to each other

7. Unit of energy is.
a) joule. b)Kilowatt – hour
c)Electron volt d)All the above

8. Which of the following statement is false.
a) power = work/time b) work = force * displacemt
C) kinetic energy = 1/2mass *(velocity)2
d)work = power *displacement

9. Formula of kinetic energy is.
a) mv. b)mv2
c) 1/2 mv2. e) 1/2 m2v

10. Bat produces:
a) Infrasonic. b) ultrasonic
c) Audible waves. d) mechanical waves

11. Which of following waves are used in SONAR technique:
a) Audio wave. b) Infrasonic
c) ultrasonic. d) None of these

12. An upward force which act on an object when it is immersed in a liquid is called.
a) Thurst. b) Buoyant force
c) pressure. d) friction force

13.Distance is a :
a) scalar quantity. b) Vector quantity
c) scalar and vector quantity c) None of these

14.unit of displacement is :
a) m2. b) m c) m3. d) m/s

15) which of the following quantity is measured by odometer provided in vehicle:
a) Distance. b) speed
c) Velocity. d) Acceleration

16). The action of push pull or hit or based on :
a) concept of gravitation b) concept of force c) concept of acceleration. d) concept of sound

17. By which law of motion force can be defined.
a) first law. b) second law c) Third law. d) fourth law

18. In which state matter is available.
a) solid. b) liquid c) gas. d) all of these

19. Boiling point of water.
a)0°c. b)78.3°c. c) 25°c. d)100°c

20. In which property is not present in solid.
a). Fixed shape. b) compressibility
c) stable. d) density is more

Section - B

Q.2 what is polyatomic ions. 02

Q.3 why are we able to ship hot tea or milk faster from mass of a rather than a cup? 02

Q.4. convert the following temperature to the Celsius scale.
a) 293 k. b) 470 k

Q 5. Differentiate between homogeneous mixture and heterogeneous mixture with example. ,02

Q.6 what are the characteristics of the particles of matter? 02

Q.7 write the chemical formula of the following. 02
a) magnesium chloride
b) calcium oxide.

Q.8 what are canal rays? 02

Q.9 Name the three sub atomic particles of an atom 02

Q.10 Draw a sketch of Bohrs model of an atom with three shells. 02

Q.11 Na+ has completely filled k and l shells.Explain. 02

Section - C

Q.12. write down of compounds represented by the following formulc. (any 3). 03
i) CaCo3. b) CaCl2. c)K2 So4. d)H2S
Q.13 when a carpet is beaten with stick dust comes out of it explain? 03
Q.14. How is ultrasound used for cleaning? 03
Q.15. a) what is power? 03
b) Define 1 joule of work?
Q 16. Write the difference between. 03.
a) speed and velocity
b) distance and displacement
Q.17 what factors maybe responsible for losses of greens during storage.? 03
Q.18a) what is the difference between manure and fertilizer ? 03
b) what is the difference between broiler and layers? 03
Q.19 what are wavelength ,frequency ,time period and amplitude of a sound wave? 03
Q.20 define kinetic energy and derive and expression for it? 03
Q.21 why is sound wave called a longitudinal wave? 03 

Section D

Q.22 give two practical applications of reflection of sound waves. 04
OR
what is sound and how is it produced?
Q. 24 which would require a greater force accelerating a 2 kg mass at 5 m per second square or 4 kg mass at 2 m/s2. 04
OR
Explain it.
a) First law of motion
b) second law of motion
Q.25. Which of the following is true for displacement? 04
a) it cannot be zero.
b) It's magnitude is greater than the distance travelled by the object.
oR
A bus decreases its speed from 80km/h to 60 km/h in 5s. Find the acceleration of the bus.
Q 26. Explain why some of the leaves may get datashed from a tree if we vigorously shake it's branch. 04
OR
Why do you fall in the forward direction when a moving bus breaks to stop and fall backward when it accelerate from rest?
Q27 what are the limitation of JJ thomson's model of an atom? 04
OR
What are the limitation of ratherford's model of an atom?

Section -E

Q.28. Atoms and molecules are the building blocks of matter. An atom is the smallest unit of an element that returns its chemicals properties while a molecules is a group of two or more atoms held together by chemical bonds. Item consist of positively charged nucleus which contains protons and neutrons surrounded by negatively charged electrons in energy level or shells. The number of protons in an atom determines its atomic number and define its unique Identity as an element. The electrons in an atom occupy specific energy levels, and the outermost shell is known as the balance shell. Atoms gain, lose or share electrons to achieve a stable electron configuration, forming chemical bond and giving rise to molecules. Understanding the concept of atoms and molecules is crucial for comprehending various chemical reaction and the composition of substances.

Answer the following. 05

1) what is the smallest unit of an element that returns its chemical properties?
A) proton. b) electron
c) nucleus. d) atom
2. ) What is group of two or more items held together by chemical bonds called.
a) Element. b) compound
c) molecule. d) nucleus
3.) What are the positively charge particles present in the nucleus of an atom called?
a) electrons. b) protons
c) neutrons. d) balance electrons
4) which part of an atom contain electron in energy levels or shells.
a) protons b)neutrons
c)nucleus. d) balance shell
5. What do atoms due to achieve a steamer electron configuration.
a) gane ,loss or share electrons. b) absorb protons
c)Increase their atomic number. d) create chemical bonds